# Ebbsfleet Central East
# Outline Planning Application

Ebbsfleet DEVELOPMENT CORPORATION

EBBSFLEET GARDEN CITY

**Waste Strategy**

103780-PEF-XX-XX-RP-TR-0000009

**September 2022**

Pell Frischmann

# Ebbsfleet Central East

## Waste Strategy

August 2022

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# Contents

1. Introduction ....3
1.1. Purpose Of The Report....3
2. Scheme Context ....4
2.1. Proposed Development ....4
2.2. Waste Collection Catchments....6
2.3. Waste Transfer ....6
3. Legislation, Policy and Guidance ....7
3.1. Introduction ....7
3.2. European Legislation ....7
3.3. Key National Legislation ....8
3.4. Regional and Local Policy ....10
3.5. Kent Minerals and Waste Local Plan 2013-30 ....10
3.6. Kent Waste Disposal Strategy ....13
3.7. Joint Municipal Waste Management Strategy ....14
4. Waste Sources, Waste Stream Storage and Collection ....15
4.1. Sources of waste ....15
4.2. Waste Storage and Collection ....15
4.3. Waste transfer....16
4.4. Refuse collection vehicle access ....16
4.5. Waste Production ....19
5. Management ....21
5.1. Roles....21

## Figures

Figure 1.1: Site Location ....3
Figure 2.1: GBC/DBC Boundaries Including Indicative EDC1/EDC2 Refuse Collection Boundaries ....6
Figure 3.1: Waste Hierarchy ....7
Figure 4.1: Ebbsfleet Central East – EC1 outline masterplan ....17
Figure 4.2: Ebbsfleet Central East – EC2 outline masterplan ....18

## Tables

Table 2.1: Development Schedule 1 – Maximum Residential ....5
Table 2.2: Development Schedule 2 – Maximum Office ....5
Table 4.1: Standard Bin Dimension ....15
Table 4.2: Potential waste collection methodology – EC1....17
Table 4.3: Potential waste collection methodology – EC2....18

## Appendices

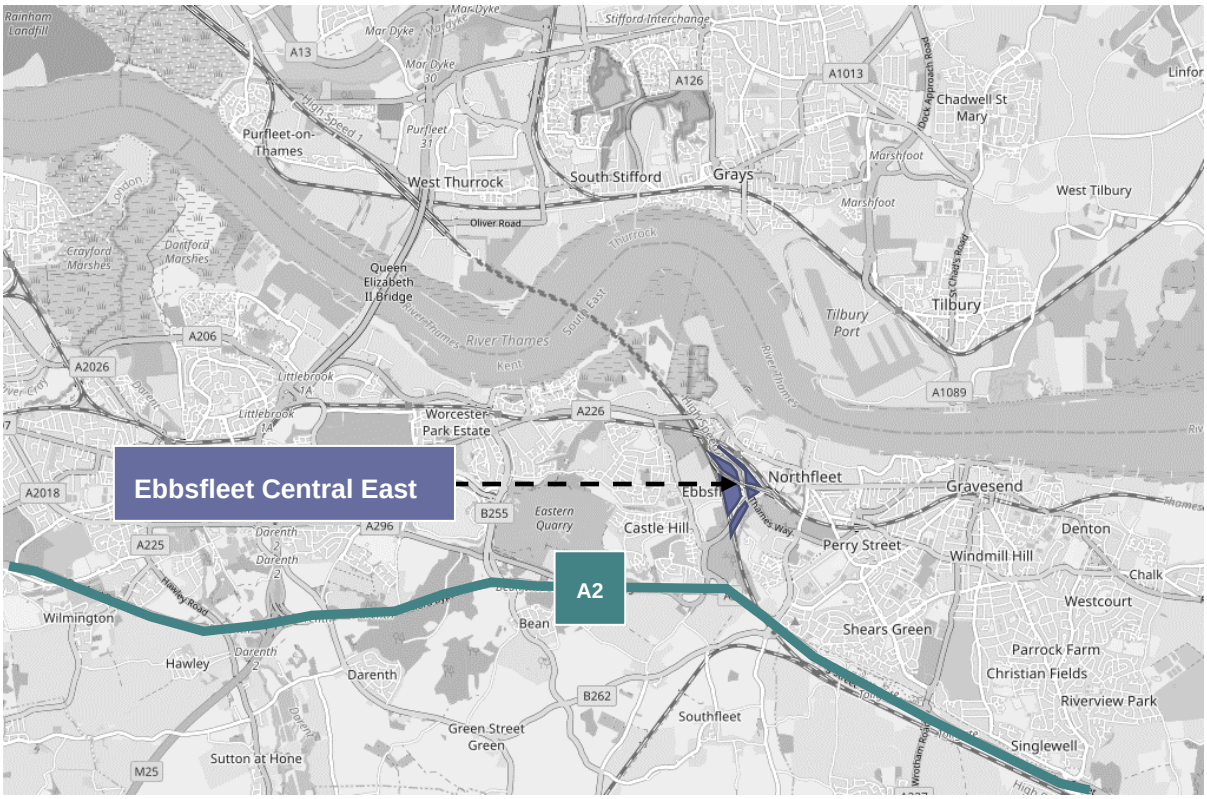
Appendix A – Illustrative masterplan

# 1. Introduction

## 1.1. Purpose Of The Report

1.1.1. Pell Frischmann has been commissioned by Ebbsfleet Development Corporation (EDC) to prepare this high level Waste Management Strategy (WS), to support the illustrative masterplan and outline planning application for the development of Ebbsfleet Central East. The development area is identified in Figure 1.1[1].

**Figure 1.1: Site Location**

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1.1.2. The aim of this WS is to identify the broad principles of waste management for the Site with a view that subject, to detailed reserved matters applications, waste is effectively managed in line with the waste hierarchy and relevant policy requirements.

1.1.3. The remainder of this report provides the context as to the scheme coming forward the relevant policy context for waste management and the waste collection measures that are being considered.

[1] Please note, the red line boundary for this outline planning application should be taken from the submitted Site Location Plan (Drawing Ref: ECE-WAM-XX-XX-DR-A-07-001).

# 2. Scheme Context

## 2.1. Proposed Development

### Development Description

2.1.1. The Ebbsfleet Central East development is a mixed-use scheme focused around Ebbsfleet International Station incorporating residential, employment (office), health, retail, education and hotel land uses. The scheme development also accounts for redeveloping the existing Ebbsfleet International Station car parks A, B and C and replacing the parking provison within two multi-storey car parks.

2.1.2. Ebbsfleet Central East provides a core component of the Ebbsfleet Garden City development area. It is located north of the A2 with Ebbsfleet International Station located directly adjacent to the site. Ebbsfleet as a whole is identified as a key regeneration area which will see the development of a Garden City encompassing the areas of Eastern Quarry, Ebbsfleet Green, Swanscombe, Northfleet Embankment West, Northfleet Embankment East and Ebbsfleet Central. The location of the site is identified in Figure 1.1.

2.1.3. The Ebbsfleet Central East development area is split into three land parcels as follows:

- Ebbsfleet Central East 1 (EC1) is located north-east of Ebbsfleet International Station with Thames Way running on a north-south alignment through the site and the North Kent High Speed Rail Line Spur running along the southern boundary and the North Kent Rail Line running along the northern boundary. Ebbsfleet International Car Park C is located within the development parcel.
- Ebbsfleet Central East 2 (EC2) is located south-east of Ebbsfleet International Station with Thames Way running on a north-south alignment along the eastern boundary and Ebbsfleet Gateway running on an east-west alignment along the southern boundary. Ebbsfleet International Car Parks A and B are located within the development parcel as is the drop off/pick up area for the station.
- Ebbsfleet Central East 6 (EC6) is located south of Ebbsfleet Gateway with the Northfleet Waste Water Treatment Works located on the southern boundary and Thames Way running on a north-south alignment along the eastern boundary. EC6 provides an open space area for the development and as such is not considered further within this document.

### Development Schedule

2.1.4. As an outline scheme the development schedule is not fixed although a maximum level of development is identified with this being 485,000sq.m of development floor area (see Development Specification for further details). Parameter plans have been prepared and accompany the planning application to provide context as to the limits of development. Two development schedules have been produced with one accounting for a maximum level of commercial development and one a maximum level of residential development. These are summarised in Table 2.1 and Table 2.2.

**Table 2.1: Development Schedule 1 – Maximum Residential**

| Land Use | Minimum Floorspace (GIA) sq.m | Maximum Floorspace (GIA) sq.m | Scenario 1 |
|---|---|---|---|
| Hotel/Serviced Apartments (C1) | 0 | 25,000 | 17,500 |
| Residential Institutions (C2) | 0 | 35,000 | 0 |
| Residential (C3) | 100,000[2] | 250,000[3] | 234,000[4] |
| Co-Living (C4/Sui Generis) | 0 | 35,000 | 0 |
| Retail (E(a) and E(b), F2a) | 0 | 21,500 | 13,500 |
| Leisure (E(d), F1(b), F2(c) and F2(d)) | 0 | 34,750 | 3,000 |
| Business (E(c) and E(g)) | 20,000 | 100,000 | 20,000 |
| Services (E(e) and E(f)) | 2,500 | 40,000 | 30,000 |
| Learning (F1 excluding F1b) | 0 | 75,000 | 4,000 |
| Local Community (F2b) | 1,250 | No maximum | 1,000 |
| Student Housing (Sui Generis) | 0 | 35,000 | 0 |
| Multi-storey car parking (Sui Generis) | 25,000 | 95,000 | 95,000 |
| Other Sui Generis Uses | 0 | 15,000 | 7,000 |
| Ancillary floorspace including enclosed plant, energy centres and electricity sub stations etc. | 0 | No maximum | 60,000 |
| Total | N/A | N/A | 485,000 |

**Table 2.2: Development Schedule 2 – Maximum Office**

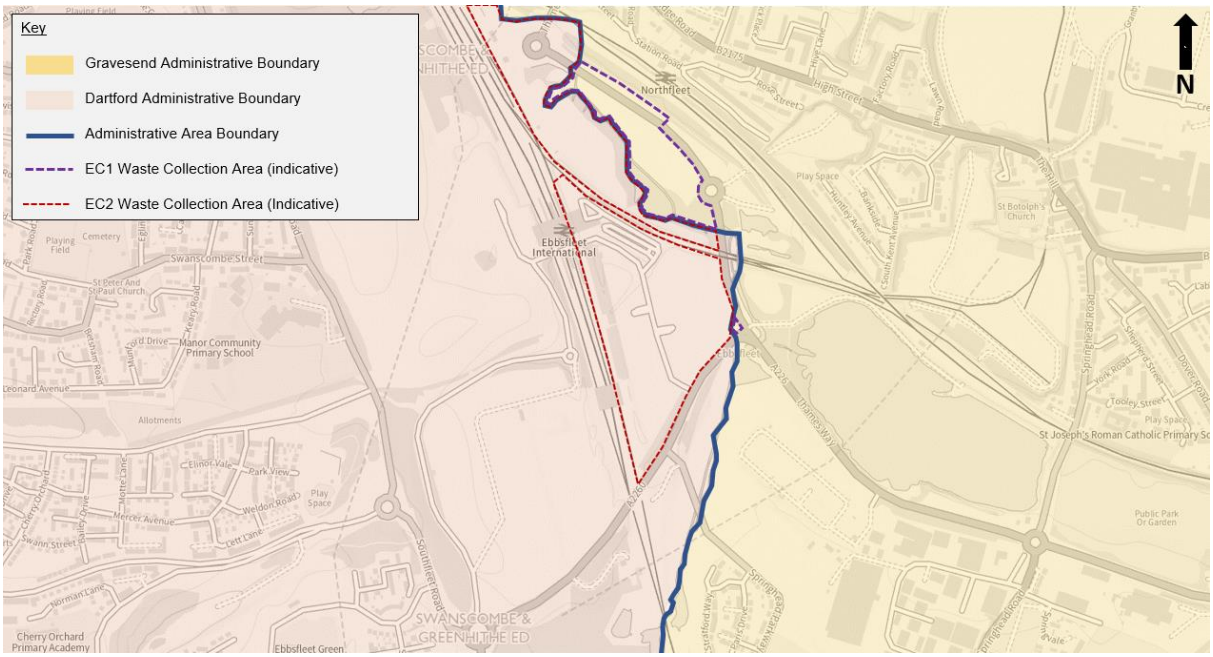
| Land Use | Minimum Floorspace (GIA) sq.m | Maximum Floorspace (GIA) sq.m. | Scenario 2 |
|---|---|---|---|
| Hotel/Serviced Apartments (C1) | 0 | 25,000 | 17,500 |
| Residential Institutions (C2) | 0 | 35,000 | 0 |
| Residential (C3) | 100,000 | 250,000 | 154,000[5] |
| Co-Living (C4/Sui Generis) | 0 | 35,000 | 0 |
| Retail (E(a) and E(b), F2a) | 0 | 21,500 | 13,500 |
| Leisure (E(d), F1(b), F2(c) and F2(d)) | 0 | 34,750 | 3,000 |
| Business (E(c) and E(g)) | 20,000 | 100,000 | 100,000 |
| Services (E(e) and E(f)) | 2,500 | 40,000 | 30,000 |
| Learning (F1 excluding F1b) | 0 | 75,000 | 4,000 |
| Local Community (F2b) | 1,250 | No maximum | 1,000 |
| Student Housing (Sui Generis) | 0 | 35,000 | 0 |
| Multi-storey car parking (Sui Generis) | 25,000 | 95,000 | 95,000 |
| Other Sui Generis Uses | 0 | 15,000 | 7,000 |
| Ancillary floorspace including enclosed plant, energy centres and electricity sub stations etc. | 0 | No maximum | 60,000 |
| Total | N/A | N/A | 485,000 |

[2] 1,166 dwellings
[3] 2,917 dwellings
[4] 2,728 dwellings
[5] 1,795 dwellings

## 2.2. Waste Collection Catchments

2.2.1. The proposed development straddles the administrative boundaries of both Gravesend Borough (GBC) Council and Dartford Borough Council (DBC) and as such it is anticipated that refuse collection, particularly in relation to residential waste, will be undertaken by both authorities. Figure 2.1 identifies the Borough's administrative boundaries and provides an indication of the areas within EC1 and EC2 requiring waste collection.

**Figure 2.1: GBC/DBC Boundaries Including Indicative EDC1/EDC2 Refuse Collection Boundaries**

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2.2.2. It is evident from Figure 2.1 that approximately half of the EC1 development area is to be served by waste collection deployed by GBC with the remainder of EC1 and EC2 development area served by DBC.

2.2.3. It should be noted that a relatively small triangle of land situated to the west of the junction of Thames Way/Ebbsfleet Gateway is located within the catchment of GBC. However, this area is currently earmarked for open space with no development and as such will not require waste collection.

## 2.3. Waste Transfer

2.3.1. Kent County Council (KCC) is the domestic waste disposal authority for the area in which the Ebbsfleet Central East development is located. Gravesend Borough Council (GBC) and Dartford Borough Council (DBC) are the collecting authorities who transfer this waste to KCC facilities. With the proposed development being of a mixed-use nature it is anticipated that refuse collection will be undertaken through a combination of the local authority fleets and private waste collection contractors.

2.3.2. The current Waste Transfer Station (WTS), serving both GBC and DBC, is the Pepper Hill Recycling Centre located south-east of the development adjacent to the A2 and accessed via Station Road. Waste is currently bulked on-site and then removed. Pre-application discussions with KCCs waste officer have identified that this WTS is currently operating at capacity with DBC already needing to relocate recycling to another site.

2.3.3. Accounting for the extant situation it is evident that the proposed development will be unable to use existing facilities for waste transfer. It is understood that KCC and EDC are working in collaboration to find a new WTS (requiring a 2 hectare site and a 30 year lifespan) and it is likely that the new facility would be located in Dartford so as to allow GBC sole use of the Pepper Hill facility. We understand KCC are likely to seek a contribution from this outline planning application towards the funding of a new WTS.

# 3. Legislation, Policy and Guidance

## 3.1. Introduction

3.1.1. This WS has been prepared in line with the principles of international and national waste policy, the requirements of Kent County Council, Gravesend Borough Council, Dartford Borough Council and the requirements of the British Standard (BS) for waste management in buildings.

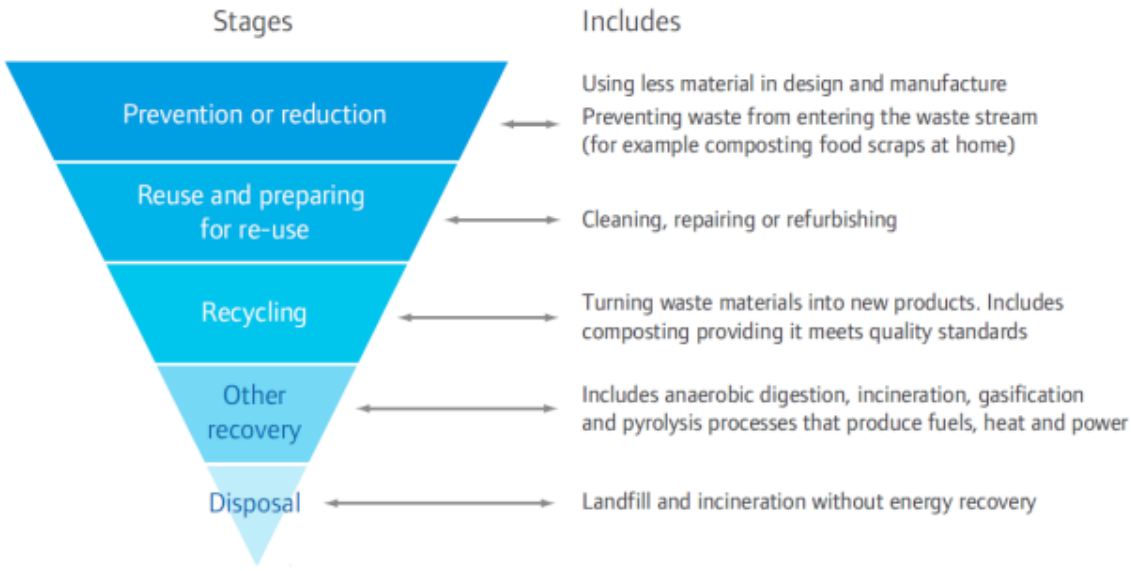
## 3.2. European Legislation

3.2.1. The principal legislation influencing waste is the revised Waste Framework Directive (Directive 2008/98/EC) with this setting out the basic concepts and definitions related to waste management.

### The Waste Framework Directive (2008/98/EC) (Amending Waste Framework Directive (2006/12/EC)

3.2.2. The European Union (EU) Waste Framework Directive (WFD1) covers all aspects of waste and is designed to protect human health and the environment against the negative impacts of waste management, including waste collection, storage, treatment and disposal. The legislation is based around the Waste Hierarchy which comprises five key waste management priorities – prevention, re-use, recycling, recovery and disposal in that order of importance. Figure 3.1 provides further explanation of the Waste Hierarchy

**Figure 3.1: Waste Hierarchy**


Stages
Includes
Prevention or reduction
Using less material in design and manufacture
Preventing waste from entering the waste stream (for example composting food scraps at home)
Reuse and preparing for re-use
Cleaning, repairing or refurbishing
Recycling
Turning waste materials into new products. Includes composting providing it meets quality standards
Other recovery
Includes anaerobic digestion, incineration, gasification and pyrolysis processes that produce fuels, heat and power
Disposal
Landfill and incineration without energy recovery

3.2.3. In addition to the promotion of the Waste Hierarchy, the WFD has several other objectives such as:

- The duty to manage waste without harming the environment or endangering human health;
- The requirement to have a permitting system for waste management activities, with exemptions available for activities that pose less risk to the environment;
- The polluter pays principle applied to costs of waste management;
- Duty of care; and,
- Proximity principle, so waste is disposed of within the state of origin or in the nearest disposal facility in the adjoining state.

3.2.4. Since 2015, separate collection of paper, metal, plastic and glass is required.

### The Landfill Directive (1999/31/EC)

3.2.5. The Landfill Directive is legislation designed to standardise the operations of landfill sites with the aim of preventing or reducing adverse effects of landfill on the environment, particularly surface water,

groundwater, soil, air and human health. Under the Directive, landfills are separated into three categories for hazardous waste, non-hazardous waste and inert waste. The legislation is based around acceptance criteria for waste going to landfill and operating permits for landfill owners with the following waste acceptance criteria followed:

- Waste must be treated before being landfilled;
- Hazardous waste, as defined by the Directive, must be assigned to a hazardous waste landfill;
- Landfills for non-hazardous waste must be used for municipal waste and for non-hazardous waste;
- Landfill sites for inert waste must be used only for inert waste; and
- Criteria for the acceptance of waste at each landfill class in accordance with the general principles of Annex II.

3.2.6. Liquid, flammable, explosive/oxidising, infectious clinical waste, most tyres and any other types of waste set out in Annex II of the directive are not accepted at landfill sites.

## 3.3. Key National Legislation

### Environmental Protection Act 1990

3.3.1. The Environmental Protection Act 1990 is the primary legislation in UK waste management and provides the structure and authority for waste management and the control of pollution.

3.3.2. Requirements are outlined for waste storage, treatment and disposal and controls for impacts of waste storage such as dust and odour are set out in the Act. It is separated into six parts as follows:

- Part I – Prescribed processes and substances;
- Part II – Disposal of controlled waste on land;
- Part IIA – Contaminated land;
- Part III – Statutory nuisances;
- Part IV – Litter;
- Part V – Amendment to the Radioactive Substances Act 1960; and
- Part VI – Genetically modified organisms.

### National Planning Policy Framework 2021

3.3.3. The National Planning Policy Framework (NPPF) acts as guidance for local planning authorities and decision makers for drawing up plans and making decisions on planning applications. The NPPF does not contain specific policies for waste, as the national waste policy is published as part of the National Waste Management Plan for England.

### Waste Management Plan for England 2013

3.3.4. The Department for Environment, Food and Rural Affairs (Defra) published a Waste Management Plan for England in December 2013. The plan provides a high level analysis of the current waste management situation in England and fulfils the requirements set under Article 28 of the revised WFD1 and Schedule 1 of Waste Regulations 20116. The plan does not introduce any new policies but aims to collate all current waste management policies into one national plan.

### Government Review of Waste Policy in England 2011

3.3.5. The Government Review of Waste Policy13 in England provided an overall strategic review of waste policy in England and provided commitments on improving a wide range of waste management aspects including (but not limited to):

- Prioritise efforts to manage waste in line with the waste hierarchy and reduce the carbon impact of waste;
- Develop a range of measures to encourage waste prevention and reuse, supporting greater resource efficiency; and,

- Develop voluntary approaches to cutting waste, increase recycling, and improve the overall quality of recycled material, working closely with business sectors and the waste and material resources industry.

3.3.6. The commitments made in the review are broadly split between improvements to the sustainable use of materials and improvements of services to householders and businesses.

## British Standard for Waste Management in Buildings

3.3.7. This remainder of section 3.3 sets out the requirements for waste management as set out by the British Standard BS 5906:2005: Waste management in buildings which sets out a code of practice for the collection, storage, segregation and treatment of waste from residential and commercial buildings.

### Accessibility requirements for users to waste storage

- It is recommended that facilities staff must walk no further than 30 m (horizontal distance) to the nearest bin store when emptying bins. Easy accessibility needs to be prioritised;
- It must be possible for facilities staff to access the waste stores without transporting waste through 'clean' areas or through public areas such as canteens.

### Accessibility for waste collection operatives

- Safe area for the refuse collection vehicle to stop no more than 15 metres walking distance from the waste store;
- Access to the waste store must be on level ground or sited in locations which do not require refuse operatives to wheel containers up/down steps or inclines greater than 1:12;
- A dropped kerb or crossover will be required from the waste store to the vehicle;
- If access to the waste store is within a car park area or via internal estate roads, the size of the refuse collection vehicles and their manoeuvrability and turning characteristics need to be considered and the storage area needs to be designed accordingly;
- It is suggested that access to the bulky waste store should be provided for a 10-tonne caged vehicle to allow for ease of collection;
- Waste collection operatives should not be required to manoeuvre bins through more than one set of double doors or reverse driving for more than two vehicle lengths;
- Where roads are likely to be parked with cars, access for the collection vehicle should still be maintained.

### Movement of bins within the development by facilities staff

3.3.8. On-site staff will need to transport bins from the internal bin store to external collection store, and the following should be considered for the proposed development:

- The collection point would need to be large enough to store a minimum of 50% of the total number of bins, i.e. all the recycling or all the residual waste, so that all recycling or non-recycling can be collected on the same day;
- Parking space for bin tugs, if required;
- The transportation route (free of steps, slopes);
- If lifts are proposed for the collection of the bins from a lower ground, they need to be large enough and a strategy for lift breakdowns should be considered;
- Sufficient containers should be provided to allow for some containers to remain in the bin store for residents to use whilst collection activities are occurring.

### Design of waste stores

- Within the bin store, all bins must be accessible, facilities should not block any utility service points, must not obstruct sight lines for pedestrians, drivers or cyclists, and should be stored separate from bicycles;
- Doors through which bins are manoeuvred need to be of a durable and hard-wearing material;

- Doors will need to be double, and open outwards;
- The storage areas should be designed to accommodate the bins “side by side” and not “end to end” to guarantee accessibility;
- The ceiling height needs to take into account of the full opening of the lid, in addition to any clearance for lifting that may be required by refuse collection vehicles;
- The ceiling height must take into account operation of the compaction equipment;
- Where waste is to be stored inside, the housing chamber should have a water supply, drainage, ventilation and lighting;
- Bulky waste stores should be clearly annotated on plans;
- Within the bin store, all bins must be accessible, facilities should not block any utility service points, must not obstruct sight lines for pedestrians, drivers or cyclists, and should be stored separate from bicycles;
- A minimum clear space of 150 mm between each individual container and the surrounding walls is required. The storeroom should be designed in a way which facilitates convenient removal and replacement of containers and allows separation of bins for residual and dry mixed recycling;
- The waste store should be located to prevent nuisance and laid out to prevent injury of those accessing the waste store, such as providing sufficient sound insulation;
- Waste stores should be secure to protect against animal scavengers;
- Consider the aesthetics of the development;
- Provide sufficient noise and sound insulation (e.g. from glass handling);
- Consider ease of maintenance.

## 3.4. Regional and Local Policy

3.4.1. At a local level the Boroughs neighbouring the Site, identify the ‘The Kent Minerals and Waste Local Plan’ (adopted September 2020) and the policies within it as being applicable to relevant planning applications.

## 3.5. Kent Minerals and Waste Local Plan 2013-30

3.5.1. The Kent Minerals and Waste Local Plan (The Plan) provides a framework for the management of all waste streams that are generated and/or managed in Kent. The Plan is also designed to *“help district and borough councils take minerals and waste considerations into account when making decisions on other forms of development.”*

3.5.2. In relation to waste, the Plan has been produced such that it supports residents and businesses in cutting the amount of waste production *“recognising waste as a resource and setting a framework for significantly reducing the amount being sent to landfill.”*

3.5.3. The Plan is seen as playing an important role “*in the delivery and maintenance of Kent’s infrastructure”* supporting the construction industry, as well as assisting in the protection of the environment. The Plan is also seen to *“contribute to achieving a low carbon economy with sustainability at its heart”.*

3.5.4. In preparing The Plan, account was taken of international/national legislation, national planning policy and local plans/strategies. In relation to the latter, the ‘*Kent Joint Municipal Waste Strategy*’ was considered.

3.5.5. The Spatial Vision for Minerals and Waste in Kent included in section 3 of The Plan outlines Kent’s ambition for sustainable resource management and mineral supply. Whilst also recognising that technology will change over the plan period, the plan is therefore robust and flexible enough to enable improvements in technology to be incorporated into future mineral supply and waste management developments.

3.5.6. The strategic objectives are set out in three sections “general”, “minerals” and “waste”. The most relevant for this policy review are the objectives that are general and waste only. The key general objectives are as follows:

- "1. Encourage the use of sustainable modes of transport for moving minerals and waste long distances and minimise road miles.
- 2. Ensure minerals and waste developments contribute towards the minimisation of, and adaptation to, the effects of climate change. This includes helping to shape places to secure radical reductions in greenhouse gas emissions and supporting the delivery of renewable and low carbon energy and associated infrastructure.
- 3. Ensure minerals and waste sites are sensitive to both their surrounding environment and communities, and minimise their impact on them.
- 4 Enable minerals and waste developments to contribute to the social and economic fabric of their communities through employment opportunities."

3.5.7. With regard to waste the objectives are as follows:

- "11. Increase amounts of Kent's waste being re-used, recycled or recovered. Promote the movement of waste up the Waste Hierarchy by enabling the waste industry to provide facilities that help to deliver a major reduction in the amount of Kent's waste being disposed of in landfill.
- 12. Promote the management of waste close to the source of production in a sustainable manner using appropriate technology and, where applicable, innovative technology, such that net self-sufficiency is maintained throughout the plan period.
- 13. Use waste as a resource to provide opportunities for the generation of renewable energy for use within Kent through energy from waste and technologies such as gasification and aerobic/anaerobic digestion.
- 14. Provide suitable opportunities for additional waste management capacity to enable waste to be managed in a more sustainable manner.
- 15. Restore waste management sites to the highest possible standard to sustainable after uses that benefit the Kent community economically, socially or environmentally. Where possible, after uses should conserve and improve local landscape character and incorporate opportunities for biodiversity to meet targets outlined in the Kent Biodiversity Action Plan, the Biodiversity Opportunity Areas and the Greater Thames Nature Improvement Area."

3.5.8. Chapter 6 of the Plan provides a focus on waste and includes a "*Delivery Strategy for Waste*" management development in Kent up to the end of 2030 consisting of 18 Core Strategy Waste (CSW) policies. Of these Policies the following are of relevance:

***"Policy CSW 3***

***Waste Reduction***

*All new development should minimise the production of construction, demolition and excavation waste and manage any waste in accordance with the objectives of Policy CSW 2.*

*The following details shall be submitted with the planning application, except for householder applications:*

*1. the measures to be taken to show compliance with this policy*

*2. the details of the nature and quantity of any construction, demolition and excavation waste and its subsequent management*

*New development should include detailed consideration of waste arising from the occupation of the development including consideration of how waste will be stored, collected and managed.*

*In particular proposals should ensure that:*

*1. there is adequate temporary storage space for waste generated by that development allowing for the separate storage of recyclable materials; and*

*2. as necessary, there is adequate communal storage for waste, including separate recyclables, pending its collection; and*

*3. storage and collection systems (e.g. any dedicated rooms, storage areas and chutes or underground waste collection systems), for waste are of high quality design and are incorporated in a manner which will ensure there is adequate and convenient access for users and waste collection operatives and will contribute to the achievement of waste management targets; and*

*4. adequate contingency measures are in place to manage any mechanical breakdowns. All relevant proposals should be accompanied by a recycling & waste management strategy which considers the above matters and demonstrates the ability to meet local authority waste management targets."*

3.5.9. Policy CSW 4 of the strategy confirms that "*Kent currently achieves net self-sufficiency in waste management capacity for all waste streams*." with the annual capacity of the Waste Management Facilties (excluding waste transfer) adequate to manage the quantity of waste predicted to arise within those areas under its jursidication. The continued ability to be self-sufficient with the management of waste close to source is a key objective of the Plan.

3.5.10. The plan recognises that existing and future waste management capacity may not be for the exclusive management of Kent's waste, with the view that *"proposals that would result in more waste being managed in Kent than is produced may be acceptable if they resulted in waste moving up the hierarchy".* The Achievement of *"net self-sufficiency*" is considered to be a baseline aspiration with annual monitoring providing an indication as to whether the Plans policies need updating. The Policy makes it clear that the purpose of implementing the principle of net self-sufficiency is not with a view to restricting the movement of waste as this could have a detrimental impact on developing waste facilities required to provide additional capacity for Kent's waste arisings.

***"Policy CSW 4***

***Strategy for Waste Management Capacity***

*The strategy for waste management capacity in Kent is to provide sufficient waste management capacity to manage at least the equivalent of the waste arising in Kent plus some residual non-hazardous waste from London. As a minimum it is to achieve the targets set out below for recycling and composting and other forms of recovery.*

***Table 1***

| | *Milestone Year* | | | |
|---|---|---|---|---|
| | *2015/16* | *2020/21* | *2025/26* | *2030/31* |
| ***Local Authority Collected Waste*** | | | | |
| *Recycling/Composting (77)* | *n/a* | *50%* | *55%* | *60%* |
| *Other Recovery* | *n/a* | *45%* | *43%* | *38%* |
| *Remainder to Landfill* | *n/a* | *2%* | *2%* | *2%* |
| ***Commercial and Industrial Waste*** | | | | |
| *Recycling/Composting(78)* | *n/a* | *50%* | *55%* | *60%* |
| *Other Recovery* | *n/a* | *35%* | *32.5%* | *30%* |
| *Remainder to Landfill* | *n/a* | *15%* | *12.5%* | *10%* |
| ***Construction & Demolition Waste (Non-Inert only)*** | | | | |
| *Recycling* | *n/a* | *12%* | *13%* | *14%* |
| *Composting* | *n/a* | *1%* | *1%* | *1%* |
| *Other Recovery* | *n/a* | *5%* | *5%* | *5%* |
| *Remainder to Landfill* | *n/a* | *2%* | *1%* | *0.5%* |

*77 This is taken to include organic waste (including green and kitchen waste) treatment by Anaerobic Digestion.*

*78 This is taken to include organic waste (including green and kitchen waste) treatment by Anaerobic Digestion."*

## 3.6. Kent Waste Disposal Strategy

3.6.1. As the Waste Disposal Authority for the area in which the Proposed Development is located, KCC ensures that the waste collected by the borough and district councils is disposed of in line with key environmental legislation and regulations.

3.6.2. The Kent Waste Disposal Strategy highlights KCCs position at the time of the documents writing as well as identifying future pressures and outlining how KCC proposes to maintain a sustainable waste management service.

3.6.3. The strategy document confirms that KCC Waste Management operates in a two-tier system as a Waste Disposal Authority (WDA) for the receipt and onward processing/disposal of Kents household waste collected by the district and borough councils as the Waste Collection Authorities (WCAs) whilst also having responsibility to provide a Household Waste Recycling Centre (HWRC) service to residents. The policy also states that "*The HWRCs are for the disposal of household waste only*" and that they do not accept trade waste.

3.6.4. This Strategy is designed to present the overall ambition for waste in Kent County up to 2035 including a succession of priorities and supporting objectives to assist in the reaching the goals set.

3.6.5. As identified in section 3.2 the strategy identifies that legislation and performance targets for waste services are currently "*passed down from the European Union and transposed into national law, policies and strategies*" with this based on the 'waste hierarchy'. The principal legislation influencing waste is the revised Waste Framework Directive (Directive 2008/98/EC) (see section 3.2) with this setting out the basic concepts and definitions related to waste management.

3.6.6. The strategy acknowledges that the effects of EU driven UK legislation in the long-term has uncertainties post-Brexit. However, in the short term, the strategy recognises imminent EU legislation and outlines how these may impact on KCC. Of these the main legislation is the EU Circular Economy Package (currently in development phase) which consists of *"an EU Action Plan and a number of*

*legislative proposals on waste, packaging waste, landfill and electrical and electronic waste"*. The Package is seen to have set ambitious targets and with the key elements as follows:

- A common EU target for recycling 65% of municipal waste by 2030;
- A common EU target for recycling 75% of packaging waste by 2030;
- A binding landfill target to reduce landfill to maximum of 10% of all waste by 2030;

3.6.7. Despite Brexit, the Circular Economy Package and the obligations within it, remain relevant to the UK as they could still be required to be implemented.

3.6.8. The strategy states that KCCs "*Ambition is to deliver a high quality household waste disposal service, whilst remaining cost-effective for the people of Kent, with an emphasis on waste reduction, reuse, recycling and achieving zero landfill".* To achieve this the strategy sets out six priorities, with these as follows:

- Objective A: Continue to support and contribute to the implementation of the Kent Environment Strategy through our waste disposal activities.
- Objective B: Maximise reuse and recycling and eliminate waste to landfill in accordance with the Waste Hierarchy.
- Objective C: Work as part of the KRP (Kent Resource Partnership) to support waste prevention initiatives including lobbying and working with manufacturers to minimise waste and packaging.
- Objective D: Ensure materials are segregated at our HWRCs in line with legislative requirements. Objective E: Take action to reduce the negative impacts that our service has on the environment and support approaches to reduce or enforce against environmental crime.
- Objective F: Continue to explore opportunities for alternative uses for those closed landfill sites that KCC has responsibility for, and continue to monitor them to ensure they are safe for the environment.

## 3.7. Joint Municipal Waste Management Strategy

3.7.1. The Joint Municipal Waste Management Strategy was developed by the 13 councils in the Kent Resource Partnership (KPR) (most recently refreshed to cover the period 2018/19 to 2020/21) setting out how the partnership intends to manage its household waste.

3.7.2. The overarching vision is that the KRP will *"lead in the transformation to a circular economy, where the value of material resources flowing into and through Kent are retained, generating employment, skills and training opportunities, and realising wider economic, environmental, health and wellbeing benefits for the local and regional community and beyond"*.

3.7.3. The strategy documents provide a mission statement that confirms that the KPR is committed to "*delivering efficiency and quality in our resource management and waste services, with focus on: -*

- *Maximising the 'value' of resources that we manage from households, in terms of realising the social, environmental and economic opportunities;*
- *Providing the best possible value for money service to the Kent taxpayer, taking into account whole service costs;*
- *Realising opportunities to improve services now and in the future through engagement, collaboration and working in partnership with the supply chain; and*
- *Supporting future thinking through ongoing research and evidence that will facilitate the transition into `a circular economy for Kent"*

# 4. Waste Sources, Waste Stream Storage and Collection

## 4.1. Sources of waste

4.1.1. As identified the Proposed Development is of a mixed-use nature and as such it is anticipated that it will have a large variety of distinct sources of waste varying from typical residential and commercial waste to educational facility waste and clinical waste associated with the proposed HEiQ Health & Wellbeing Hub and Community Diagnostics Centre. These waste streams may include, but are not limited to:

- General residential refuse (residential);
- Recyclables (residential);
- Residual Waste;
- Mixed Dry Recycling;
- Organic Catering Waste;
- Organic plant science waste;
- Fluorescent Tubes;
- Radioactive Waste;
- Liquid Biochemical/Chemical Waste;
- Waste Electrical and Electronic Equipment (WEEE);
- Bulky Waste (e.g. furniture);
- Pyrex and lab glass;
- Recyclable glass;
- Sharps;
- Clinical Waste;
- Non-hazardous clinical waste;
- Potentially infectious waste; and,
- Empty Gas Cylinders.

## 4.2. Waste Storage and Collection

4.2.1. As this is an outline application definitive waste storage information has not yet been developed. However, the following provides an indication of the anticipated methods of storage and collection that will be refined and agreed during the individual detailed applications.

4.2.2. In all buildings, waste is to be deposited in one or more purpose-built refuse stores, and, where possible, this is to be internal to the building. In flatted schemes the majority of these being in the basement of each block. It is anticipated that, in both general refuse and recycling waste, will typically be stored in 1110 litre ‘euro-style’ bins. However, a range of typical bin dimensions that could be used utilised are provided in Table 4.1 below allowing for flexibility.

**Table 4.1: Standard Bin Dimension**

| Bin size (Litres) | Height (mm) | Width (mm) | Depth (mm) |
|---|---|---|---|
| 120 | 950 | 500 | 560 |
| 240 | 1100 | 600 | 750 |
| 360 | 1100 | 660 | 900 |
| 660 | 1300 | 1250 | 800 |
| 1100 | 1500 | 1400 | 1100 |
| 1280 | 1265 | 985 | 1430 |

4.2.3. As identified in section 1 waste collection for residential production is expected to be undertaken by both GBC and DBC. These authorities have independent waste management policies as summarised in section 2. However, it is anticipated that food waste would be collected on a weekly basis and that residual waste and recycling would either be collected at the same time or on alternating weeks, in a 2 week cycle. Bin provision will therefore be provided based on the individual authorities’ requirements.

Waste collection for non-residential producers will be undertaken by a contractor (appointed by occupiers and which may also be GBC/DBC) at an agreed frequency of not less than weekly.

4.2.4. Further to the above, accounting for the specialist needs of the proposed HEiQ Health and Wellbeing Hub and Community Diagnostics Centre operations, it is envisaged that arrangements will be made, by the NHS, for specialist collections of hazardous waste streams such as radioactive waste, sharps and chemical waste on an as needed basis with facilities managers organising for collections from either a 'Safety Office' or directly via specialist contractor employed by the Hub to remove such waste.

## 4.3. Waste transfer

4.3.1. Based upon the scale of development and the wide-ranging land use classes and configuration/layout of the proposed illustrative masterplan, it is anticipated that waste transfer between origin and destination will be undertaken through a variety of possible means including:

- Direct transfer of waste to storage points by occupants – generally this is anticipated to be a per-core storage area to assist with adhering to national guidance on carry distances;
- Chute transfer of waste to local storage points within each building - to accord with national guidance on carry distances;
- Kerbside/street level waste receptacles with underground waste storage; and,
- Use of a centralised and/or automated Envac-type waste collection system, such as Envac, with a central repository located within the Ebbsfleet Central East development.

4.3.2. To provide further clarification in relation to the fourth point above - this method of collection is based on a vacuum waste collection system that transports waste at high speed through a network of underground pneumatic tubes to a collection station where it is compacted and sealed in containers, with these emptied/transferred to waste transfer sites once they have reached capacity.

4.3.3. The system has the potential to create efficiencies in waste collection as it allows for the separation of waste materials at source i.e. portholes (bins) located in public areas and on private property (where developers have agreement to use the facility) with these portholes individualised to cater for general waste, recycling or compostable material. The system also has the potential to reduce the instances of refuse collection vehicles (RCVs) requiring access to pedestrianised areas in instances where buildings do not have frontage access to a road or internal provision for RCVs to enter a site and carry out waste collection.

4.3.4. EDC has currently held initial discussions with Envac in relation to their vacuum system and the potential to deploy it at Ebbsfleet Central East, in relation to serving the whole development. EDC are also exploring other centralised waste solutions with similar benefits.

4.3.5. Should, in due course it be determined, in agreement with DBC and GBC as WCAs, that a system of this nature was a cost effective/deliverable solution it is currently anticipated that a centralised the Envac waste collection facility would be situated in parcel EC2 within the proposed multistorey car park identified on the masterplan as EC2.O and also shown on Figure 4.2 as location 15.

4.3.6. Until further work has been carried out to determine the viability / appropriateness of the waste transfer options summarised in bullet points 3 and 4 listed above, the subsequent sections of this report make the assumption that waste will be collected via street level servicing and are based on the Illustrative Masterplan.

## 4.4. Refuse collection vehicle access

4.4.1. Waste collection will be affected from a combination of street level servicing which might include:

- From the public highway (ideally using laybys);
- On plot collection where parking/landscaping areas are designed to accommodate fully laden RCV's;
- On-plot internal roads where RCV clearances are permissible; and,

- Where unavoidable, through time restricted access to pedestrianised areas in instances of buildings lacking an accessible road frontage.

4.4.2. In line with KCC guidance, it is anticipated that waste vehicle operatives will be able to access refuse storage/staging areas within 25m of an RCV with the aspiration that, where possible, these drag distances will be reduced as far as practical and that a maximum vehicle reverse distance of 20m will be sought. Where these criteria are not met, arrangement will be formalised with commercial refuse collection contractor(s) by private agreement, and with the relevant Waste Collection Authority (GBC/DBC) through the planning process. As refuse vehicles are multi-crewed and trained, this is considered appropriate.

4.4.3. An Illustrative Masterplan has been produced for the development and is included in Appendix A. Extracts from the Masterplan are provided in Figure 4.1 and Figure 4.2 with building locations also numerically identified. Table 4.2 and Table 4.3 relate to these figures respectively and have been produced to provide an indication of the potential waste collection methodology for each building.

**Figure 4.1: Ebbsfleet Central East – EC1 outline masterplan**

**Table 4.2: Potential waste collection methodology – EC1**

| Plot Number | Plot Name | Refuse collection strategy |
|---|---|---|
| 1 | EC1.A | On plot collection from parking/landscaping areas |
| 2 | EC1.B | On plot collection subject to appropriate clearance for cart tipper |
| 3 | EC1.C | On plot collection subject to appropriate clearance for cart tipper or on Kerbside collection from service layby |
| 4 | EC1.D | On plot collection subject to appropriate clearance for cart tipper or on Kerbside collection from service layby |
| 5 | EC1.E | Kerbside collection from service layby |
| 6 | EC1.F1 | On plot collection from parking/landscaping areas shared with EC1.F2 |
| 7 | EC1.F2 | On plot collection from parking/landscaping areas shared with EC1.F1 |
| 8 | EC1.G | Kerbside collection from service layby |
| 9 | EC1.H | Kerbside collection from service layby |
| 10 | EC1.I | Kerbside collection from service layby using proposed turning head to access EC1.J |
| 11 | EC1.J | Kerbside collection from service layby |

**Figure 4.2: Ebbsfleet Central East – EC2 outline masterplan**

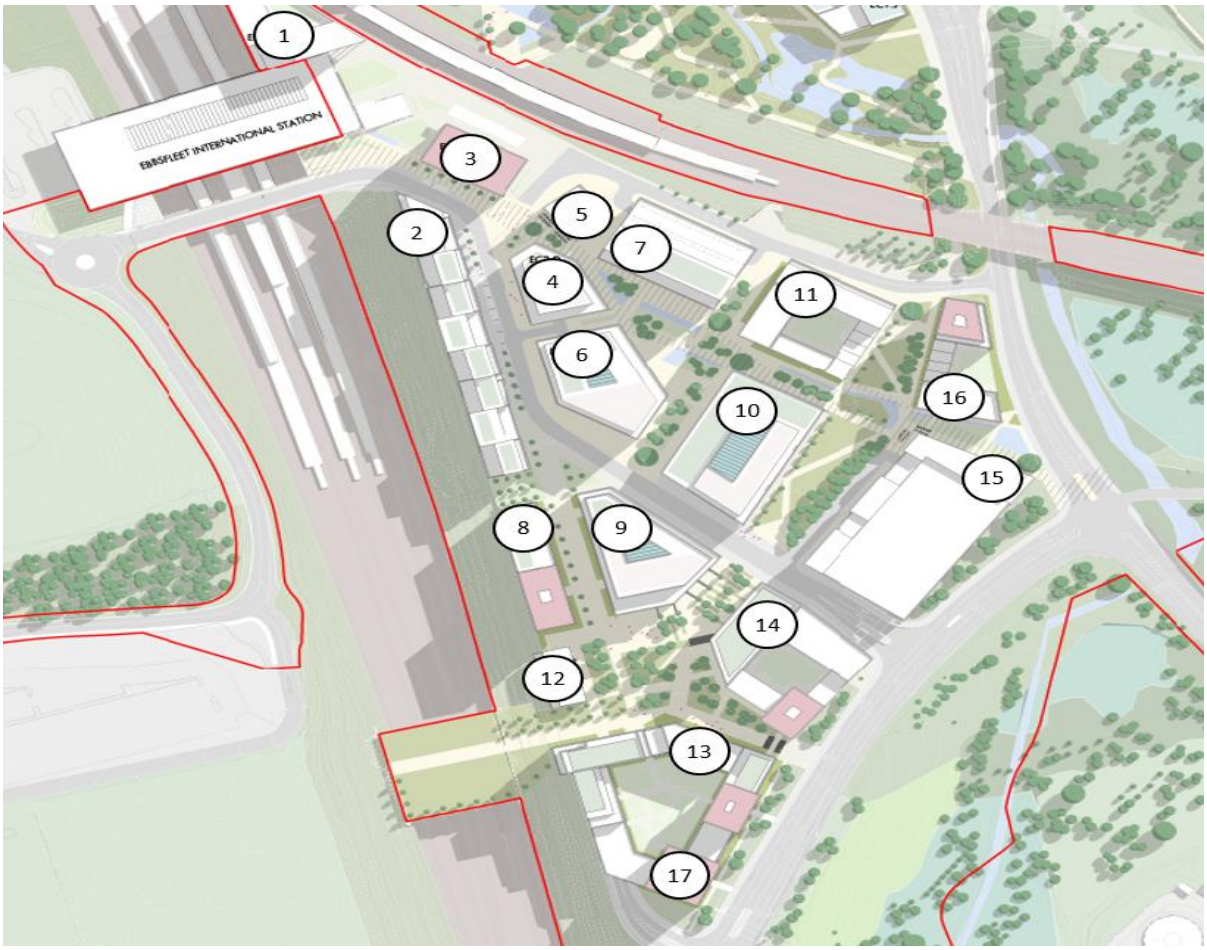



**Table 4.3: Potential waste collection methodology – EC2**

| Plot Number | Plot Name | Refuse collection strategy |
|---|---|---|
| 1 | EC2.A | On plot collection from parking/landscaping areas |
| 2 | EC2.B | Kerbside collection from service layby |
| 3 | EC2.C | On plot collection from parking/landscaping areas |
| 4 | EC2.D | On plot collection subject to appropriate clearance for cart tipper |
| 5 | EC2.E | Kerbside collection from service layby |
| 6 | EC2.F | On plot collection subject to appropriate clearance for cart tipper |
| 7 | EC2.G | On plot collection subject to appropriate clearance for cart tipper |
| 8 | EC2.H | Street level collection through timed used of pedestrianised areas |
| 9 | EC2.I | Kerbside collection from service layby |
| 10 | EC2.J | Kerbside collection from service layby |
| 11 | EC2.K | Kerbside collection from service layby |
| 12 | EC2.L | Street level collection through timed used of pedestrianised areas |
| 13 | EC2.M | Kerbside collection from service layby |
| 14 | EC2.N | Kerbside collection from service layby |
| 15[6] | EC2.O | On plot collection subject to appropriate clearance for cart tipper |
| 16 | EC2.P | Kerbside collection from service layby |
| 17 | EC2.Q | On plot collection subject to appropriate clearance for cart tipper |

[6] Should an Envac system for waste collection be used it is anticipated that this will be located within the proposed multi-storey car park at location 15.

## 4.5. Waste Production

4.5.1. As this document relates to an outline planning application whose end users are not currently known, it is not possible to provide detailed waste calculations for the Proposed Development. However, the current waste management policies adopted by both GBC and DBC are summarised below and will inform the method by which waste production will be calculated in the respective detailed applications to be made in the future along with basic design principles.

**Residential Waste Production**

4.5.2. Waste trip generation is a function of the volume of waste produced, subject to a minimum of one collection per week. Volumes of waste generated on a weekly basis are assumed to be the whole of the standard specified in either the *Gravesham Borough Council Waste Management Policy 2017* for those development plots located in the Gravesham catchment or those in the *Dartford Waste Collection & Recycling on New Developments Guidelines for Developers 2016*.

4.5.3. DBC provides weekly collection of domestic refuse and fortnightly collection of recyclables. Residents of houses will be supplied with:

- A green 180 litre wheeled bin for general refuse;
- A grey 240 litre wheeled bin for mixed dry recyclables (paper, cardboard, cans and plastic bottles); and,
- A black 55 litre box for glass..

4.5.4. Residents of flats will be provided with:

- Reusable collection bags for dry recycling and glass bottles. These are emptied by the residents at communal bin stores containing separate 660 litre or 1100 litre bins for refuse and mixed dry recyclables respectively, and communal 240 litre bins for glass.

4.5.5. Developers are expected to provide separate storage facilities for refuse and recycling containers at all developments irrespective of whether houses or flats. The Council requires the provision of wheeled bins for refuse and dry recyclables containment, with these considered safe, hygienic and a convenient form of collection. Any departure from this policy position would need to be specifically agreed with the Waste & Recycling, Planning and Building Control sections of the Council.

4.5.6. Notwithstanding the above the policy document also states that *"Where the estate layout precludes separate bin storage at each property, or in the case of flats, it is recognised that communal bin stores may need to be considered"*. Where communal bin stores are to be provided, it is confirmed that these should be designed such that they can accommodate communal bins such as 1100 litre or 660 litre sizes and 240 litre bins.

4.5.7. In terms of bin numbers, the policy suggests that in general 1 x 1100 litre bin for general waste will serve 5 - 6 flats and the refuse and recycling bins should be provided in the ratio of 2:1:1 (i.e. two bins for refuse, one bin for dry recyclables, and one bin for glass).

4.5.8. Any bin stores are to be designed with screening and adequate ventilation. They should give easy access for residents carrying refuse/recyclables with space provided for bin lids to open and adequate circulation so that if a number of bins are full, occupiers can reach alternatives. Importantly communal bin stores should be located such that the carry distance for residents to the collection point does not exceed 30 metres.

4.5.9. The design of stores should enable bins to be taken from the store to a waiting RCV by a direct paved route not exceeding 25 metres over level ground with drop kerbs/ramps provided where appropriate. Where stores open on to a car park/service area hatching/bollards should be provided to prevent obstruction.

4.5.10. In relation to collection vehicles the Council's contractor operates a fleet of Dennis Eagle 3 axle RCVs. The largest of which is 10.6m long, 3.6m tall and 2.6m wide and has a turning radius is 8.5m. Accounting for these specifications, developers will be required to provide adequate turning and

manoeuvring space on all roads and service areas to ensure adequate access. Additionally, road and service areas to be utilised should be constructed to accommodate RCVs with a 32 tonne GVW.

4.5.11. In relation to new developments, GBC's guidance states that *"Planning applications for major development will be notified to the Assistant Director (Environment) to enable comments regarding the new waste and recycling requirements to be fed into the planning process"*. This designed to ensure developments are provided with appropriate storage and access.

4.5.12. Gravesham Borough Council policy confirms that *"All households in the borough will have their residual household and recycling waste collected on alternate weeks with food being collected weekly.* In new developments the policy states that the minimum requirements are as follows for houses:

- A grey 180 litre bin for residual waste;
- A grey 240 litre bin with green lid for recycling waste; and,
- A black 23 litre caddie with orange lid for Food Waste.

4.5.13. In addition to the above the Council operates a 'charged' green waste scheme for those households in the borough who can store the bin on site (240 litre or 140 litre) with these collected fortnightly.

4.5.14. In relations to flats, the policy states a requirement for:

- 1 x Euro 1100 per six flats for residual waste; and,
- 1 x Euro 1100 per six flats for recycling waste.

**Non-Residential Waste production**

4.5.15. Neither the Gravesham Borough Council Waste Management Policy 2017 nor the Dartford Waste Collection & Recycling on New Developments Guidelines for Developers 2016 extend to commercial or construction waste with the latter stating that their guidance document *"should be read in conjunction with the appropriate Planning Guidance or Building Regulations that deal with sustainable waste management"*. This is generally a standard position in relation to non-residential waste production as commercial operators generally employ private contractors who can tailor their service to the specific needs of a business.

4.5.16. When accounting for the position above it is anticipated that for those commercial developments to be located in Ebbsfleet Central East document *BS5906*:2005 '*Waste Management in Buildings: Code of Practice',* which provides typical weekly general waste production estimates for various commercial uses, will be applied when calculating waste production.

**Construction Waste Production**

4.5.17. The focus of this document is on the operational requirements of the scheme rather than the waste produced during demolition/construction, with these specifics to be determined during detailed design/reserved matter applications.

4.5.18. Notwithstanding the above and based on the extant built environment within EC1 and EC2, which largely consists of large ground level carparks and open green space, the amount of demolition material to be transferred off-site will not be substantial. This largely reflecting the aspiration to re-use the material generated during demolition on site and as part of the cut and fill balance.

# 5. Management

## 5.1. Roles

**Residential Occupiers**

5.1.1. Given that the residential elements of the Ebbsfleet Central East development are unlikely to be delivered by a single developer, site management companies for the individual development plots will be responsible for matters relating to the maintenance of residential refuse areas. This includes the cleaning of refuse storage areas.

**Non-residential Occupiers**

5.1.2. Non-residential occupiers will be expected to maintain their own Servicing and Delivery Plans and will take responsibility for maintenance of their refuse areas, and this would be secured through relevant legal agreements e.g. planning obligation between Planning Authority and land owner, lease agreement between land owner and site occupier.

**Monitoring**

5.1.3. General and strategic monitoring activities related to the occupied Development's waste are likely to be captured through Servicing and Delivery Plans. It is anticipated that annual monitoring surveys will capture waste-related data and servicing trips. It is envisioned that GBC/DBC waste and street cleansing services would be consulted to ensure that the relevant considerations were included in the strategic monitoring for the Development.

5.1.4. Operational waste-specific issues including compliance monitoring will ultimately be a matter of agreement between the occupiers and GBC/DBC officers. Enforcement of operational arrangements would be through standard mechanisms, such as the Environmental Protection Act 1990 and similar regulations. Monitoring would occur by virtue of the regular attendance of GBC/DBC waste collection staff or appointed contractors.

# Appendix A – Illustrative masterplan

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1. Do not scale drawings. Written dimension govern.
2. All dimensions are in millimetres unless noted otherwise.
3. All dimensions shall be vertified on site before proceeding with the work. WWP shall be notified in writing of any discrepancies.
4. This drawing must be read in conjunction with all relevant contracts, specifications and drawings.
5. Check all levels against survey drawings to surrounding works area.
6. All levels have been provided by the Surveyor

Notes:

Planning Application Boundary

The red line application boundary shown on this plan has been drawn to remain within the urban development area designated by The Ebbsfleet Development Corporation (Area and Constitution) Order 2015.


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| Rev | Date | Description |
|---|---|---|
| 04 | 06.09.22 | Draft Planning Drawing |
| 03 | 17.08.22 | Draft Planning Drawing |
| 02 | 08.08.22 | Draft Planning Drawing |
| 01 | 16.06.22 | Draft |
| 00 | 20.05.22 | Draft |

Project:

# Ebbsfleet Central
# Ebbsfleet

Title:

## Indicative Site Plan

Date: 06/15/22

DRAFT

Project Status: FOR INFORMATION

| Scale: | Drawn: | Checked: | Approved: |
|---|---|---|---|
| 1 : 2000 @ A1 | LP | LP | SC |

DRAWING No. **ECE-WAM-XX-XX-DR-A-07-100**

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